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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/936,998 | 02/07/2002 | John Michael Brady | 117-365 | 2862 |

7590 10/04/2005
Nixon & Vanderhye
8th Floor
1100 North Glebe Road
Arlington, VA 22201-4714

EXAMINER

LAVIN, CHRISTOPHER L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2621

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|----------------------|--------------|--|
| Application No. | Applicant(s) | |
| 09/936,998 | BRADY ET AL. | |
| Examiner | Art Unit | |
| Christopher L. Lavin | 2621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-30 and 33-44 is/are rejected.
- 7) ☐ Claim(s) 31 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment

1. This action is in response to the amendment received on 07/22/05.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Please note, only newly amended material will be addressed in this rejection, please refer to the previous office action for all other 103 reasons of rejection.
4. Claims 24 – 30, 35 – 39, 42, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cham ("A Statistical Framework for Long-Range Feature Matching in Uncalibrated Image Mosaicing", 1998) in view of Martens (6,157,677).

The newly amended independent claims 24, 42, and 43 are rejected for the same reasons as previously presented in the first office action. The newly added language in the independent claims does not change the scope of the claim. The term "neighboring" can be interpreted broadly. Essentially any pixel in an image can be considered a neighbor of another pixel in that image. The applicant could correct this problem by using more definitive language to describe what neighboring entails. Further details will be provided in the response to arguments.

In regards to new claims 44, Cham (page 5, section 3 Experimental Results, first paragraph) discloses a workstation, i.e., apparatus, to carry out the method.

Response to Arguments

5. Applicant's arguments filed 07/22/05 have been fully considered but they are not persuasive.

6. The applicant's arguments can be broken up into three groups. First, the applicant argues that Cham does not disclose that all the candidate motions are stored. Second, the examiner and the applicant are interrupting the definition of the word "neighboring" differently. Finally, the applicant argues that Cham focuses on rigid motion. If argument will be responded to separately.

In regards to the first argument, the claims do not read "all the candidate motions", but rather a "plurality". The term "plurality" simply requires more than one, and not all. Cham discloses a plurality.

In regards to the second argument, as previously stated the term "neighboring" can encompass any point within the image. The applicant clearly, in arguments, by referring to neighboring as local has in mind a narrower definition. However the applicant is entitled to the broadest possible reading of a limitation and thus "neighboring" will be interrupted in its broadest sense. The applicant could remedy this situation by replacing "neighboring" with more definite language, such as "adjacent".

In regards to the final argument, Cham is silent on the issue of non-rigid motion, and this is the reason the examiner decided to write a 103. However Cham is not teaching away from the concept, in fact upon further examination of the reference it is clear that Cham at least allows for non-rigid motion. Take for example figure 5 where there are clearly people and trees in the image, which are definitely non-rigid objects. It

should also be noted that buildings are non-rigid as they are designed to sway all be it slightly.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

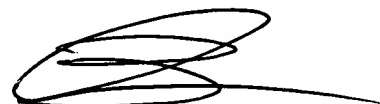
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher L. Lavin whose telephone number is 571-272-7392. The examiner can normally be reached on M - F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mancuso Joseph can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Lavin



BRIAN WERNER
PRIMARY EXAMINER